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United States Department of Agriculture, BUREAU OF ANIMAL INDUSTRY,

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THE TWENTY-SECOND ANNUAL REPORT OF THE BUREAU OF ANIMAL INDUSTRY.

The Twenty-second Annual Report of the Bureau of Animal Industry of the United States Department of Agriculture, for the year 1905, has just been published. It is a cloth-bound volume of 364 pages, illustrated by 23 plates and 22 text figures, and contains special articles and information of interest and value alike to the stockman, the dairyman, the poultryman, the farmer, and the scientist.

This report is issued as a Congressional publication, and a limited number of copies is assigned to each Senator, Representative, and Delegate in the Fifty-ninth Congress for distribution among his constituents. The Bureau of Animal Industry has no copies for general distribution, its quota being required for its own employees and such outsiders as cooperate in its work. The book is on sale to the public by the Superintendent of Documents, Government Printing Office, Washington, D. C., for 50 cents.

NOTE.—Editors will confer a favor upon the Department by including the preceding paragraph in any notice they may publish concerning this report. Frequently journals omit the portions of Department press notices which explain how publications may be procured, and sometimes the statement is made that a publication may be obtained free of charge on application to the Department when such is not the case. As a consequence the reader is misled and the Department is embarrassed and burdened with a great deal of correspondence which would not be necessary if the facts were made plain by the press.

The volume contains the following articles: "Report of the Chief of the Bureau for the fiscal year ended June 30, 1905;" "Notes on the cattle tick and Texas fever," by E. C. Schroeder; "The persistence of the Texas fever organism in the blood of southern cattle," by E. C. Schroeder and W. E. Cotton; "Soft-cheese studies in Europe," by Charles Thom; "Records of dairy cows: Their value and importance in economic milk production," by Clarence B. Lane; "Government encouragement of imported breeds of horses," by George M. Rommel; "Welsh Black cattle," by John Roberts; "Baby beef," by Ernest G. Ritzman; "Poultry management," by G. Arthur Bell; "Capons and caponizing," by Rob R. Slocum; "Annual production of animals for food, and per capita consumption of meat in the United States," by John Roberts. A brief synopsis of these papers follows:

REPORT OF THE CHIEF.

The initial article—the report of the Chief of the Bureau—presents an account of the operations of the Bureau for the fiscal year 1904–5. As the period covered was antecedent to the passage of the new meat-inspection law, no comparison is made in this report between the old and new conditions. It may be interesting, however, to note the great amount of work which was accomplished under the old law, in spite of insufficient authority and the inadequate appropriation. Thus during the fiscal year 1904–5 there were in all no less than 65,821,504 animals inspected before slaughter and 40,221,013 at the time of slaughter. Of the latter there were 118,783 carcasses and 158,968 parts condemned.

TEXAS FEVER AND THE CATTLE TICK.

The two papers dealing with this subject are of special timeliness, in view of the campaign now being waged by the Federal and State governments for the extermination of the tick which spreads Texas or southern fever of cattle and which infests the southern part of the United States. In the first of the two articles Doctor Schroeder describes the life history of the tick and shows how injurious this parasite is to the southern cattle merely as a blood-sucking pest, aside from the greater damage it causes by transmission of the fever germ. He also points out the marvelous vitality of the tick, which, as he puts it, "shows conclusively that the cattle tick is excellently prepared to make a fight against extermination." Yet he is satisfied that extermination is possible and considers that the ticks are such objectionable pests as to make it worth while to go to the very limit of trouble and expense to be rid of them. The paper gives results of observations made at the Bureau's experiment station which will probably have an important bearing upon the methods to be followed in eradicating the ticks.

The second paper reports tests which showed that the infectious agent of Texas fever remained in the blood of two cows for twelve years and in the blood of another for ten years after they had been removed from the South and carefully guarded against reinfection.

SOFT-CHEESE STUDIES IN EUROPE.

There are a number of well-known European soft cheeses which have considerable sale in the United States and are imported in large quantities, notably Roquefort, Camembert, Brie, Gorgonzola, and Stilton. For two or three years cooperative studies and experiments by the agricultural experiment station at Storrs, Conn., and the Dairy Division of the Bureau have been carried on with a view to promoting the successful commercial production of such cheeses in this country. In furtherance of this work an expert was sent to Europe to study the making and marketing of these cheeses. A great variety of information was obtained about the conditions and processes of making, ripening, etc., and much of this is presented in the article by Doctor Thom, who states that our exports have already demonstrated the practicability of making some of these cheeses in the United States in every respect equal to the best foreign product.

RECORDS OF DAIRY COWS.

The value and importance of keeping a record of the milk yield of his cows is very much underestimated by the average dairyman. In an article on this subject C. B. Lane, Assistant Chief of the Dairy Division, estimates that one-fourth of the dairy cows in the country, or fully 5,000,000, do not pay for their keep, and that probably another one-fourth do not yield any profit. The standard of our dairy cows needs to be raised, and the first and most important step in this direction should be for every dairyman to keep a record of what his cows are doing, so that he can weed out the poor ones. It is a poor plan for him to trust to his judgment in this matter. Mr. Lane believes that the keeping of records with the use of the scales and the Babcock test, combined with better care and feed, would in many cases be the means of increasing both the production and the profit 100 per cent, and this with little expense. The article gives directions for keeping records and also contains a number of high records made by cows of various breeds.

GOVERNMENT ENCOURAGEMENT OF IMPORTED BREEDS OF HORSES.

Large numbers of horses are imported into this country for breeding purposes, the average annual number from 1903 to 1905 having been 2,248, with an average value of \$492 a head. Horses, as well as all other farm animals, brought in for breeding purposes are allowed to enter free of duty, subject to certain restrictions as to pure breeding; hence trade is regulated by the Government. Unfortunately there have become associated with the horse-importing trade certain evils which the Department of Agriculture is endeavoring to remedy. George M. Rommel, Animal Husbandman of the Bureau of Animal Industry, in an article on the subject, points out these undesirable features and indicates what in his opinion are the best methods of effecting improvement.

The policy of the Government is to encourage the importation of animals of the highest class, the object being the adaptation of foreign breeds to our special conditions and by fusing the imported with the native blood to ultimately become independent of foreign breeders.

That there is a necessity for the establishment of the breeds of horses in this country, especially the draft breeds, no one who is acquainted with the conditions can doubt. Mr. Rommel expresses the belief that a splendid opportunity exists here for the constructive breeder—the man who will apply ability, perseverance, and courage to the problem.

WELSH BLACK CATTLE.

An article by John Roberts under this title brings to the attention of American stockmen a breed of cattle that is practically unknown in this country. This breed is one of the oldest in the British Isles. Its home, as indicated by the name, is in Wales. Its strong points are thriftiness, grazing qualities, and excellence of the carcass. As general-purpose animals the Welsh Blacks are hard to beat, as the cows combine the opposite qualities of being good milkers with a propensity to fatten. In conformation they are quite similar to the Shorthorns. They are hardy animals and thrive under adverse conditions.

Welsh beef has held a premier position in the English markets from time immemorial, ranking with the best Scotch. The annual slaughter test held in connection with the London Smithfield show is the supreme test of quality in England, and the details of these competitions, as given in the article, show that the Welsh press the Angus closely for first place, the crossbreds (mostly Shorthorn blood) and Galloways being third and fourth, respectively. A compilation of the average live weights of the prize winners for eleven years shows that the Welsh were the weightiest animals in all the classes. Animals that will stand the test from the butcher's point of view must be worthy of consideration in this country, where beef is such an important article of commerce.

The paper discusses the origin and characteristics of the Welsh breed and describes methods of feeding and management as practiced by present-day breeders. It is well illustrated from photographs of a number of fine animals in the herd at the experimental farm of the University College of North Wales. A list of prices paid for pedigreed stock at public sales is given, showing that good specimens may be secured at a much lower figure than is paid for the more fashionable breeds.

BABY BEEF.

This product, which represents the earliest possible maturity of the bovine animal, has been brought to a high state of excellence by the American breeder and has now become firmly established in our live-stock markets. Baby beef is defined in the article on this subject by E. G. Ritzman as "a prime butcher's beast, thoroughly fattened and ripe for the block at from 12 to 24 months of age. Growth has been artificially promoted by continuous heavy feeding from birth, with the object of obtaining in the shortest time possible the maximum amount of well-matured beef." Five years ago, and even more recently, a prime steer up to 24 months of age was classed as baby beef, while to-day it is questionable whether an animal over 18 months of age should be considered as such.

The flesh of young cattle has not developed that coarseness of grain and fiber characteristic of the flesh of old animals, and is therefore more tender and delicate. The proportion of fat to lean is smaller, and the fat does not accumulate in such large deposits or lumps between the layers of muscle, but is more evenly distributed in flakes between the muscle fibers.

The paper discusses the characteristics of baby beef, the economy and greater profit in its production as compared with older cattle, the breeds and types best suited for producing it, and methods of feeding. Some of the principal advantages derived from the production of baby beef as compared with older beef are stated as (1) the quick return on the investment, (2) the greater demand for the product, and (3) the greater amount of meat produced per pound of feed consumed.

POULTRY MANAGEMENT.

This article, which deals entirely with chickens, is practical in character. "It is so easy to figure one's self getting rich raising poultry," writes the author, G. Arthur Bell, Assistant Animal Husbandman of the Bureau, "that a great many people with but little knowledge and experience have embarked in the business on a large scale, only to meet with disastrous failure. They have neglected to recognize the fact that this industry, like any other, requires a thorough training and an aptitude for the occupation. That there is good money in poultry, however, when properly managed, is shown by the many successful poultrymen who are making a good living from the industry."

The reader is given some sound advice as to how to make a start in the poultry business. Then comes a classification of the breeds, showing which are best purely for egg production, which for meat, and which for a combination of eggs and meat. Full details are given concerning the arrangement and management of poultry yards and the location and construction of houses, nests, coops, etc. There is a chapter on "How to feed for the most profitable egg production," and the raising of chickens both with and without incubators is dealt with in a thorough manner. Other subjects treated are how to produce broilers, roasters, and capons, how to fatten poultry, how to prepare and ship the products to market, and how to test and preserve eggs. Finally there is a chapter enumerating the principal diseases of poultry and giving directions for treating them.

In all respects the effort has been made to bring the discussion of methods and appliances down to date, including such subjects as dry feeding, curtain-front houses, colony houses, etc. The buildings and methods of some of the most successful and best equipped poultry farms in the country are described, and the article has 17 illustrations showing houses and appliances.

CAPONS AND CAPONIZING.

The flesh of the capon is regarded by epicures as superior to that of other chickens or even of the turkey. At present capons are most generally known and appreciated in France, but in recent years they have grown rapidly in popularity in the United States, especially in the East; consequently the business of producing them has advanced rapidly in this country.

A capon, which is an altered or castrated male chicken, bears the same relation to a cockerel that a steer does to a bull. As a result of his more peaceful disposition he continues to grow and his body develops more uniformly and to a somewhat greater size than is the case with a cockerel of the same age. Coupled with the better growth is the fact that the capon brings a better price per pound. While a rooster 10 months to a year old is worth 6 to 10 cents a pound, and in the case of especially fine poultry 12 to 15 cents a pound, capon in season brings 18 to 25 cents a pound.

In an article by Rob R. Slocum the operation of caponizing is fully explained, and information is given as to the selection of breeds, the time to caponize, the instruments necessary, the feeding of the fowls, and the killing and dressing of capons for market. Illustrations show the instruments, the various steps in the operation, and the characteristic style in which capons are dressed for market.

ANNUAL PRODUCTION AND PER CAPITA CONSUMPTION OF MEAT.

The high rank of the United States both as producer and consumer of meat is well shown in an article dealing with this subject. Taking the census of 1890 as a basis, utilizing reliable figures from other sources, and making an estimate of some of the lacking elements, the number of animals slaughtered for food in the United States in 1900 is calculated to be as follows: Cattle, 11,531,000; calves, 3,000,000; hogs, 56,654,000; sheep, 15,190,000; making a total of 86,375,000.

Making allowance for both imports and exports, the per capita consumption of meat in the United States is estimated at 179 pounds. An interesting comparison is made with other countries. The Australians alone surpass us as meat eaters, and the average in their country is abnormally high because of the large number of animals as compared with the sparse population, meat in consequence being abundant and cheap. The latest per capita estimates for various countries are as follows: Australia, 262 pounds; United States, 179 pounds; Argentina, 140 pounds; United Kingdom, 122 pounds; Germany, 99 pounds; France, 81 pounds; Denmark, 76 pounds; Switzerland, 75 pounds; Danubian States, 75 pounds; Belgium, 70 pounds; Austria-Hungary, 64 pounds; Greece, 64 pounds; Sweden and Norway, 62 pounds; Poland, 62 pounds; Holland, 55 pounds; Russia, 50 pounds; Spain, 49 pounds; Italy, 27 pounds.

MISCELLANEOUS INFORMATION.

At the end of the volume are given statistics regarding the prices of live stock at Chicago and Omaha, the receipts at and shipments from various markets, and the registration of pedigreed animals; also a compilation showing the state of contagious diseases of animals in foreign countries, a list of the publications issued by the Bureau during 1905, the rules and regulations issued during that year, and the act of Congress approved March 3, 1905, on which the regulations governing the quarantine and interstate shipment of live stock are based.